

THE
AMERICAN PRACTITIONER:

A MONTHLY JOURNAL OF
MEDICINE AND SURGERY.

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THE AMERICAN PRACTITIONER.

SEPTEMBER, 1875.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Communications.

ON THE USE OF COLD WATER IN FEVERS.

BY LUNSFORD P. YANDELL, M. D.

It was a favorite aphorism of the steam-doctors, often repeated by the people half a century ago, that "heat is life and cold death;" but the aphorism contains only half a truth. The extremes of heat and cold are alike incompatible with life. In man and in all warm-blooded animals life is comprised within a narrow range of temperature. Whether elevated a few degrees above the normal point or depressed to the same extent below it, the result is equally disastrous. It has been ascertained by experiments upon birds and the mammalia that death ensues when the heat of their bodies is raised by artificial means some ten degrees Fahr. above their natural temperature, and clinical observation has shown that when the heat of the body rises to 110° or falls to 89° the subjects are on the verge of dissolution.

The living animal body is endowed with the capacity of resisting within certain limits any great fluctuation of temperature. The depressing effects of cold are counteracted by the

oxidation of food and the waste tissues in the system, and the tendency to abnormal heat is resisted by the evaporation of moisture from the skin in some animals and from the skin and fauces in others. The striking difference in the ability of different species of animals to endure heat without injury has long been remarked. The horse, for example, bears up under a burning sun as well as his rider, while the ox soon succumbs when compelled to labor in hot weather, and sheep and hogs are still less capable of exertion under a high temperature. The explanation is found in the fact that the horse perspires and the others do not, or if they do, it is in quantities altogether insufficient. Their faculty of refrigeration is limited to their tongues and fauces, and hence when panting under the heat of summer we see them lolling out their tongues, thus exposing all the humid surface they can to increase evaporation.

It is therefore by the evaporation of moisture from the surface of the body, as Dr. Franklin was the first to point out, that the bodies of animals are kept down to a normal temperature in a heated medium. Their heat necessarily increases when there is no fluid on the surface to be evaporated, and where the natural moisture is wanting the indication is to supply its place by water. Animals understand this, and quickly betake themselves to water when overheated.

The comfort to febrile patients afforded by the use of cold water must have been witnessed in every age of medicine, but up to the present day it has not been generally adopted. In many diseases attended by high fever there is still a strong popular prejudice against cold water either as a drink or an external application. Nor is the prejudice confined to the people; not a few physicians retain a lurking apprehension of danger from its free use, and allow it sparingly to their little patients with cholera infantum and in other bowel complaints. One of the facts upon which I began to insist soon after I became a teacher of medicine was that cold drinks

were always admissible in diseases attended by urgent thirst. I contended that in fevers we could better dispense with any other remedy than cold water; and yet I have been meeting with old pupils occasionally ever since who were not converts to the safety of the practice—who were afraid to give cold water freely in cases of irritable stomach, and some who even inclined to the practice of my old colleague, Dr. Dudley, who claimed that more could be accomplished in fevers by tepid than by the coldest water.

It is now not far from a century since some English physicians, having experienced the beneficial effects of cold bathing in fever, attempted to draw the attention of medical men to the subject. Dr. James Currie, of Liverpool, toward the close of the last century published a volume, entitled "*Medical Reports on the Effects of Water,*" which at the time excited a good deal of interest in our country as well as in Europe. His work was republished in Philadelphia in 1808, and was translated into German soon after it appeared. I have had a copy of this truly philosophical treatise in my library nearly fifty years. It is as satisfactory as to the remedial power of water in fever as a work could be. The author did not claim the practice as original with himself, but says he got the idea of it from Dr. Wm. Wright, who published an account of it in the *London Medical Journal* for 1786. Dr. Wright was led to adopt it in 1777 in a violent fever in his own case, contracted on shipboard as he sailed from Jamaica to Liverpool. Finding no relief from bark, an emetic, tinct. of opium, and the other remedies tried, and experiencing great comfort from being in the cold air on deck, it occurred to him, he says, to put in practice what he had often wished to try on others. So, September 9, 1777, he continues, "having given the necessary directions, about three o'clock P. M. I stripped off all my clothes, threw a cloak loosely about me till I got on the deck, when the cloak also was laid aside. Three bucketfuls of salt water were then thrown at once upon

me. The shock was great, but I felt immediate relief. The headache and other pains instantly abated, and a fine glow and diaphoresis succeeded. Toward evening, however, the same febrile symptoms threatened a return, and I had again recourse to the same method as before, with the same good effect."

Having read Dr. Wright's narrative of his case, Dr. Currie determined on following the practice, and with what results is related in his reports. He dedicated his book to Sir Joseph Banks, in the hope that he might thereby excite an interest in the subject among men of general science, and so extend the practice through the commanders of fleets and armies; but a method of treatment "so bold and so contrary to common prejudices made," he admits, "slow progress," and after a time it fell into general disuse. How far it was ever adopted in this country I am not informed; but I remember a case in which cold affusions were employed by Dr. Newnan, of Nashville, in circumstances not calculated to raise the remedy in popular estimation. The case was one of autumnal remittent fever in a young man, a patient of my father's. It was the tenth or eleventh day of the disease, and the patient was nearly moribund. The Nashville physician felt that, having ridden a great distance to consult about the case, he must suggest something, and so had the young man stripped, laid on the floor, and two or three buckets of cold water dashed over his naked body. The effect was merely to cause some involuntary muscular movements, and the natural impression was that the violent remedy hastened the fatal issue, which followed in a few hours.

More than forty years ago Dr. Cooke called attention to the advantages of this practice in an admirable paper published in the *Transylvania Journal of Medicine*.* He was persuaded that "a powerful remedy had been too much neglected and even undervalued, although recommended as much by its

* Vol. V., p. 49, March, 1832.

pleasant effects as by its efficacy." In this paper he quotes largely from Currie, pointing out the conditions under which cold water was applied, and citing the most conclusive proofs of its power to arrest fevers. In addition to all this evidence he gives some of the results of his own large experience with the remedy. "In the severe epidemic of 1804, in Virginia, he was twice attacked, once violently; the fever was accompanied by delirium. He used cold water freely at the same time that free evacuations were going on from the administration of calomel and tartarized antimony. He administered it in many other cases the same year and in every year from that time." In the autumn of 1826, he continues, "there were so many sick in the town of Winchester, Va., in which the writer then resided, that he would not leave the town. Those in the country who, notwithstanding this refusal, chose to depend upon him were treated in the following manner: they were directed to use the cold affusion in the height of the fever, and to repeat it at the return of every paroxysm, and to use the common cathartic remedies as usual. The epidemic was very severe, many died in the town and country, and yet of the patients treated in this manner not one died."

But cold water still failed to command general attention, and its great value as an antipyretic agent was not generally recognized by physicians. Last winter the distinguished professor of theory and practice in the Bellevue Hospital Medical College, Dr. Austin Flint, took up the subject and published an admirable paper "on the Researches of Currie and recent views relating to the remedial use of Water."* The subject has also for some years past been engaging the professional mind of Germany, and already we have some most valuable contributions to our experience in the curative use of water from German physicians. Currie's work was translated into German as early as 1801, but Brand, of Stettin, has taken the lead in reviving the practice in that country. His earliest

* *American Practitioner* for January, 1875.

publications were made in 1861; and he has stated, as the result of his experiments with cold baths, that he did not lose a single patient out of one hundred and seventy during a pernicious epidemic of typhus fever. His most gratifying success has been followed up by results quite as favorable in the hands of other practitioners, and the practice now rests upon such a basis of statistics that it is likely to maintain its ground and to meet at last with general acceptance. I will transcribe a few of these results.

Jurgensen, of Kiel, for instance, reports three hundred and eighty cases of typhus treated with medicine in the usual way, from 1850 to 1861, and one hundred and sixty-nine cases treated since with water. In his first series of cases a little over fifteen per cent died, while the mortality of those treated by water was only a little over three per cent; and since he reported his early experience he has had sixty cases in which he used water without the loss of a single one.*

Liebermeister has given the results of his experience with cold baths in typhoid fever in Ziemssen's *Cyclopedia of the Practice of Medicine*. He reports that after adopting the plan of methodically applying water he lost only eight per cent of his fever patients, whereas before he had lost sixteen per cent. Ziemssen's experience has been quite as encouraging. While the mortality in typhus with him under the old practice was thirty per cent, he lost only seven per cent after he began to apply water. Lindwurm, of Munich, lost only four per cent after resorting to the water treatment. Bamberger, of Vienna, had lost twenty per cent under the old plan of cure, but reduced the mortality by water to 6.6 in a hundred. In the city hospital at Nürnberg the average mortality of fourteen was reduced below five per cent by the change of practice. Pastau treated a number of typhus patients by the expectant method and others by water. Of the former he lost sixteen per cent, while of the latter only eleven per cent died. More

* Tausky: *New York Medical Journal* for July, 1875.

strikingly still, of forty cases of febrile disease in which the hydropathic method was applied by Winternitz not one died.*

Currie's success with cold affusions in scarlatina was quite as decided as it was in typhus fever. Dr. Cooke urged this practice during an epidemic of scarlet fever in Lexington in 1832. Thomas, Zuelzer, and other German writers recommend it not only in scarlatina, but in measles, the affection of all others in which it would be most opposed by popular opinion. But the indication for its use being the reduction of febrile heat, wherever in any disease the temperature is exalted cold water applied to the surface must exert a curative influence. Observations have shown that under its use the elimination of urea, uric acid, and carbonic acid is diminished, evincing its control over the destructive processes by which the blood becomes loaded with impurities; and hence there can be no doubt that in measles, as well as in all other diseases attended by excessive heat, the safety of the patient is enhanced by the reduction of his temperature. In the convulsions of children custom has established warm baths as the cardinal remedy, but where the child has fever cold water will be found far more effectual. A good many years ago, after trying warm baths in the case of a little boy all night without arresting the convulsions, toward day it occurred to me, as his skin was hot, to substitute a cold bath, and the relief was instantaneous.

Sunstroke is an affection in which the use of cold water externally is especially indicated. We have here a morbid condition caused by heat, and in which preternatural heat of the body is at the same time the essential element. The phenomena of insolation grow out of the exalted temperature of the subject. If the temperature of the body be kept down to the normal point, no matter how great the heat to which the individual is exposed, there is no danger of sunstroke. This accident can occur only when the body is overheated.

* Tausky: *New York Medical Journal* for July, 1875, p. 18.

In a fatal case observed by Dr. Dowler, of New Orleans, the temperature rose to 108° and in another as high as 112° Fahr. In a number of cases in which the thermometer was applied by Dr. H. C. Wood death took place before the heat of the body reached 108° .

Although sunstroke, like apoplexy, seems to be instantaneous, the explosion is always preceded by symptoms that give warning of the danger. I had a case during the hot summer of 1868 in which a stout Irishman fell a victim to his neglect of the premonitory symptoms. July 14th my patient, otherwise in perfect health, complained of great oppression from the heat, which ranged during the afternoon from 90° to 95° . His skin was dry and hot and his face flushed; he was tremulous in his motions, and had a restless, anxious expression of countenance. About three o'clock he walked out of his store in the hope of exciting perspiration by exercise; but disappointed in this, and the anxiety and sense of oppression increasing, he went to a drug-store and took some paregoric in an ounce of whisky. After this he again walked out, and shortly after returning to his room, about five o'clock, was seized with apoplectic symptoms. When I first saw him, at half past six, his face was livid and turgid, and in less than an hour he died. He was too far gone to encourage any efforts in his case, but there can hardly be a doubt that the free application of cold water to his body at any time during the afternoon would have averted the fatal attack. The following case, which occurred in this city a few days ago, and was reported to me by my friend, Dr. Cox, confirms this opinion:

July 17th Charles Zoller, a stout German tanner, thirty-five years of age, left his house in the morning in perfect health, but had to quit his work and return home about eleven o'clock A. M., complaining of great heat and a sense of exhaustion. His place in the tannery was near a boiler, where he worked in an atmosphere highly heated, notwith-

standing which he had ceased to prespire that morning. About three o'clock P. M. he fell from his chair unconscious and with stertorous breathing. When Dr. Cox saw him a short time afterward he was insensible; his pulse 130, full and hard; pupils dilated. In two minutes the thermometer in his axilla rose to 110° , and the doctor thinks would probably have risen higher had he felt authorized to continue his observations longer before resorting to treatment. He was totally unconscious, and his breathing stertorous. He had been enveloped in a woolen rug to induce sweating. The doctor had him stripped at once and laid upon the rug on the floor, between an open door and a window, and, standing on a chair, poured water freely over him, beginning at his head. In twenty minutes his temperature had fallen to 103° . In thirty minutes the stertor had ceased, and he opened his eyes, though still but little conscious; pupils less contracted, the left more than the right; slight convulsion about the time his breathing became natural. Treatment continued until his temperature fell to 100° . Bromide of potassium and aconite were given for the tendency to convulsions. At half past four Dr. C. left him improving. Directed sponging of body and cold cloths to the head. At half past five returned and found him entirely conscious, able to talk, and complaining only of pain in the top of his head. No unpleasant effects followed.

Dr. Cox thought when he first saw the case that the lancet was demanded, and Dr. Ronald was called in to consult about its propriety; but the symptoms yielding so promptly to the depressing effects of the cold water, it was agreed that blood-letting was not necessary.

In all cases the efficacy of the water depends upon its refrigerating effect, and the question is as to the most efficient mode of applying it. Currie preferred cold affusions, attaching to them a peculiar efficacy; but this method gives great pain to many patients, and is less eligible than the cold

bath. Where the temperature is persistently high the bath is unquestionably the preferable mode if it can be employed, but in private practice this is not always the case. The next best method then is to remove the patient from bed and pour the water over his body till the temperature is reduced; but in a great many cases it will be found sufficient to wet the patient thoroughly as he lies in bed, and keep up evaporation from his body by means of a wet sheet. This is all that is required in the fever of intermittents, and I have repeatedly secured intermission in remittent fevers by the continued application of water as the patient lay in bed. The relief is very great. A man once said to me as I began to pour cold water over his chest and abdomen from a pitcher, "Doctor, this is better than all the medicine in the apothecary shops." A child, in the summer of 1841, was suffering with remittent fever, attended with great irritability of stomach. His father lived on the banks of Stone's River, in Tennessee. I had the little fellow immersed to his armpits in water from the river. He began at once to dip the water up with his hand and drink it. He was kept in the bath till his fever and thirst were allayed, and the vomiting ceased with the subsidence of his fever.

It is a significant fact that the only authors in Germany who report unfavorably of cold water in fever after extensive trials with it are two who permitted long intervals in its use. Krüggula and Leube failed to procure the happy results that followed the practice in the hands of others; but they only applied the remedy from six o'clock in the morning till ten in the afternoon, so that for eight hours during the night the fever was unchecked. Where baths are impracticable it is quite possible to keep down the temperature by repeatedly pouring cold water upon a sheet covering the patient, the bed being protected by means of an oil-cloth. The nurse always watching patients seriously ill with fever can easily perform the operation.

The point to be kept steadily in view is the reduction of temperature, which is to be determined in every case by the thermometer. As often as the heat becomes abnormal it must be subdued by fresh applications of water. And it is not necessary that the water be cold. Not a few patients indeed find cold water exceedingly disagreeable, and in their case tepid water should be substituted, which by its evaporation will produce the antipyretic effects aimed at.

I may mention in this connection a practice which I have pursued for many years and have been in the habit of recommending to my friends for securing sleep in very hot weather. It is this external use of water. A cold bath before going to bed will effectually lower the temperature of the body and favors sleep; but a bath can not always be commanded, and then I have availed myself of the evaporating process. The night-shirt being saturated with water carries off the heat of the body by evaporation, and renders sleep possible in the hottest summer night. In all the forty summers during which I have been using water in this way I have never contracted a cold from the practice.

As a drink in febrile and inflammatory diseases cold water is of inestimable value, and few physicians, it may be hoped, retain at this day any of the old prejudices against it. There is, in truth, no substitute for cold water in fevers, and after a long experience I freely express the opinion that it is admissible at all times in every morbid condition of the system. It is never contra-indicated when the patient craves it. Ice is better in cases of vomiting, but many times the thirst is not appeased by ice, and then with it ice-water should be freely allowed.

I have thus given, in a general way, my experience in the use of cold water, in the hope that my testimony following that of so many experienced practitioners may contribute to its more general adoption.

LOUISVILLE.

IS MENSTRUATION PATHOLOGICAL?

BY THEOPHILUS PARVIN, M. D.

The August number of the American Journal of Obstetrics contains an article by Dr. A. F. A. King, of Washington City, entitled "A new Basis for Uterine Pathology," which presents many points for criticism, and some of these we propose briefly to consider.

The following extract from Dr. King's paper will enable our readers to understand the significance of the question presented as the title of this communication:

"In the performance of the menstrual function the uterus is made to deviate from the true line of typical normality. In the strictest sense of the word, therefore, menstruation is a disease; it is not a purely physiological process, but a departure from nature; and in a recently-developed uterus, otherwise perfectly healthy, menstruation constitutes the first obliquity from the direct line of health, and from it, as a beginning, the wider and more complicated divergences branch out. . . . So deeply grounded in the medical mind is the conception of the process of menstruation being purely physiological in character that I may here present, though only in brief, the considerations that ought to lead any unbiased thinker to a different conclusion."

But before mentioning any of "the considerations" which Dr. King anticipates will have such extraordinary effect upon "unbiased thinkers," we wish to state that Auber has anticipated some of his views. Roussel, to whom Dr. King refers in a foot-note, but whose special views he does not present—simply stating that he regarded menstruation as pathological, an unnatural habit acquired in past ages, and now become a settled and regular attribute—looked upon the menstrual flow as a salutary crisis belonging to women in civilized life, because they did not live simply and frugally as in the savage condition, but gave themselves to table excesses; but Auber believed that women menstruated because

they no longer, as in the savage state, could immediately satisfy the instinct of reproduction, and hereditary influence perpetuated the characteristic once established. Raciborski suggests that in the practical working out of Auber's views we may imagine a girl who conceives before having had any menstrual flow; after delivery she becomes pregnant without any flow, and thus repeats pregnancy and accouchement until at the end of the child-bearing period she has given birth to forty children; a rate of increase that would, if any thing could, disturb the bones of Malthus most terribly. And yet would she not be a woman of perfect uterus, never having known that pathological infirmity, a menstrual flow? Very well has Raciborski said that such a condition of things would not be favorable to the perpetuation, still less to the multiplication, of the race, since most of the infants would die, and very few mothers could endure so many and such near pregnancies.

And now let us turn to some of Dr. King's "considerations:" "*First*—Menstruation is the result of an interference with nature, of a thwarting of her designs, of a violation of her laws, and is preventable by obedience to those laws." This argument is utterly without force; it is a *petitio principii*—assumes the very point to be established. But "*Second*—In the great majority of cases it is not latent, as are other purely physiological processes, but is accompanied by unpleasant symptoms." And "*Third*—To preserve comfort and cleanliness it requires during its continuance the application of an artificial appendage to the person. This requirement belongs to no natural emunctory." As long as human beings indulge in defecation, urination, and the application of a handkerchief to the nose, and make their clothing correspond with their sensations and the conditions of the atmosphere, these arguments will not seem quite conclusive.

"*Fourth*—Menstruation is a hemorrhage; it is attended with a rupture of blood-vessels. Blood-vessels were not

made to be ruptured. No hemorrhage is natural." Here again assertion is put for proof. The African king would not believe that in the country from which the missionaries came water ever became solid enough to bear an elephant. It was unnatural; it was contrary to his experience. Because hemorrhage elsewhere is not natural it does not follow that it may not in certain circumstances be natural when it comes from the uterine cavity. By parity of reasoning he might prove that the uterus is incapable of developing to the size required for containing a fetus at full term.

"*Fifth*—Although menstruation is desirable and necessary to celibate females to relieve congestion of the uterus, it still ranks second-best to reproduction, which prevents abnormal congestion; and it ought no more to be considered physiological on account of its salutary effect than epistaxis, which relieves congestion of the brain," etc.; which "consideration" we merely mention for the benefit of our readers.

"*Sixth*—The menstrual *periods* in women are analogous with the periods of œstruation ('heat' or rut) and ovulation in other animals. In both women and animals these *epochs* are the *periods* naturally designed for *coitu* and successful impregnation, as evidenced (1) by the coincident discharge of ovules, and (2) by the well-known greater certainty of conception taking place when coition occurs during the epoch. Now the menstrual discharge, except during the first few ovulatory periods of puberty, prevents coition; or if sexual union is admitted without precautionary measures, it may produce gonorrhea in the male. The menstrual *discharge of blood* has no analogue in other animals." Commencing with the last assertion, and not waiting to show the misuse of the word analogue, if Dr. King will turn to Raciborski's *Treatise on Menstruation*, he will find himself mistaken in what he means to assert. This author, who has not investigated the subject of menstruation merely or chiefly in a library, states that woman is not the only one subject to menstrual

hemorrhage; that at the *Jardin des Plantes* he has seen apes that menstruated freely for five or six days every month, and that this hemorrhage is still more characteristic in their native country and where they are free; and that some females of the domestic *mammifera*—heifers, bitches, sows, etc.—at least certain of the more distinguished races, have a vulvar hemorrhage at the time of the rut, not as much as in woman or the quadrumana, but still an unequivocal discharge of blood. But gonorrhea may be produced, unless proper precautions are taken, if sexual intercourse occur during menstruation. But here does not Dr. King confound a specific disease, consequent upon a positive *contagium*, and that produced by a non-specific cause? To that form of urethral disease which occasionally, not commonly, results from intercourse with women during menstruation Diday gave the name of *urethrorrhea*; and states that blenorrrhagia, or gonorrhea (which is a sad misnomer, meaning a flow of semen, and ought to be banished from medical science), “results exclusively from contact with the secretion of blenorrrhagia. In spite of apparent contradictions, it is never caused by the contact of any other secretion of the genital mucous membrane. Urethrorrhea is certainly caused by the contact of menstrual blood, and perhaps also by some other secretions of the genital mucous membrane.” And another eminent French observer remarks, “The product of any secretion whatever, especially if morbid, may irritate, inflame a sound organ with which it is placed. But is this contagion? Most assuredly not. There is here but an illustration of *propagation by way of irritation*. Between a contagious and a simply irritant cause there is an insuperable distance.” And Guérin suggests that if the menstrual blood was as injurious as represented by some, blenorrrhagia would be infinitely more frequent; and says that a man having intercourse with his wife during the flow has nothing to fear. The flow may be arrested, and she have a hematocele; but he gets nothing, unless he is one of the hus-

bands whom Molière has ridiculed so effectively. Gosselin asserts you will always find blenorragia in a woman from whom a man has got blenorragia; and Cullerier asserts that if you find a patient with *chand-pisse franche*, you may bet a hundred to one it resulted from impure coition.

Enough has been quoted to show that Dr. King is at least on debatable ground when he attributes gonorrhea to the menstrual discharge.

But the greater certainty of conception if coition occur during menstruation! One case is adduced in a foot-note to establish the point; while the wonderful multiplication of the Jewish race, who by divine command abstained from cohabiting during the period, proves that conception readily occurs at other times. Pouchet asserts that impregnation can only be accomplished from the first to the twelfth day after menstruation, and Courty's conclusion is that in general conception does not take place except in the eight or ten days following the flow.

The seventh of Dr. King's "considerations" is, "Evidence is wanting to prove that menstruation is common in women belonging to the savage races of mankind, who live more strictly in accordance with nature, untrammelled in their reproductive function with the usages of civilization. The Hindoo women, as a rule, do not menstruate; with them menstruation is considered a crime." The first sentence ought to have *not* inserted before "common." If any one will turn to Moreau's *Natural History of Woman*, there will be found abundant evidence that menstruation does occur among savage people, and that some—*e. g.*, the negroes and Hottentots of Africa—keep in a seclusion similar to that required of Jewesses during the flow. Indeed we may justly adopt the language of Saboyer (*Traité des Accouchements*, Paris, 1873), and assert that it is without exception indisputable that woman of whatever country, of whatever race, is subjected to the function of menstruation.

But Hindoo women do not menstruate! Consulting a friend, the Rev. L. G. Hay, who with his family resided many years in India, and in whose house female servants were employed, I learn that this is a gross error. The very word in *Hindi* to express the function of menstruation is best translated into English by *custom*; it is the custom of women among the Hindoos, just as the Chinese say *moons* for monthly periods. Tables of the time, in reference to climate and race, when menstruation first occurred have been published; *e. g.*, one will be found in Tilt's *Uterine and Ovarian Inflammation* (London, 1862), in which hundreds of cases of the Hindoo and negro race are found. When Dr. King asserts that menstruation is regarded as a crime by the Hindoos he possibly has mistaken the importance which is attached by them to early marriages, so that sexual congress may certainly occur at the access of puberty, and thus no opportunity for impregnation may be lost. The Hindoos, as well as the Persians and Chinese, even marry infants still-born, in order that their souls may not be compelled to wander upon the earth in expiation of their celibacy. (Raciborski.)

"*Eighth*—History does not furnish *unequivocal* evidence that menstruation was common in ancient times." He then alludes to the case of Rachel and her expression, "custom of women," etc. That our readers may see how blindly eager Dr. King seems to establish his point we shall quote his further remarks as to this in full:

"But the case of Rachel was altogether an anomalous one. She was twice disappointed in marriage; twice were her expected nuptials postponed for a period of seven years (fourteen in all) by the intrigues of her father, Laban. For some time after her marriage, unlike her sister Leah, she was barren. (Genesis xxix, 31.) Envyng Leah, she said to Jacob, 'Give me children, or else I die.' And Jacob answered, 'Am I in God's stead, who hath withheld from thee the fruit of the womb?' (Genesis xxx, 1, 2.) Although afterward the mother of two children, she is the first woman recorded as having died in childbed, as she did at the birth of Benjamin.

(Genesis xxxv, 18.) Her sister Leah bore seven children. The term 'custom' in the text referred to would seem to be more or less conclusive (admitting no errors of translation) were it not for other references, in which we read (Leviticus xv, 19), 'If a woman have an issue, and the issue of her flesh be blood, she shall be put apart seven days, and whoever toucheth her shall be unclean,' etc. And again (29, 30), 'She shall take two turtles and two pigeons, which the priest shall offer as an offering *to make atonement for her* for the issue of her uncleanness.' Thus the issue seems to have been regarded as sinful. If it had been common or 'customary,' how numerous must have been the priests, how constant their duties, and what countless thousands of turtles and pigeons must have been required for their sacrificial offerings! Of these there is no sufficient record."

The doctor misquotes. The offering was two turtles *or* young pigeons, not two turtles *and* young pigeons. He italicises where no italics are found, and possibly he confounds impurity or uncleanness with sin. The same chapter from which he quotes refers to a man having a running issue out of his flesh, who is required to make just such a sacrifice as woman after her issue. By parity of reasoning we might assert that, as he says the "issue" in the case of the woman seems to have been regarded as sinful, so a man who had an abscess or hemorrhage from the bowels, etc., had also sinned. Raciborski regards the hygienic laws relating to menstruation established by Moses as wise for the Jews in the climate in which they lived.

It appears from the history that Rachel's excuse for not rising up when her father came into her tent meant something that he understood, and was ample apology for this failure in the appropriate manifestation of respect; and all the story about the delay in her marriage, her temporary sterility, and her death in childbed is simply insignificant—it gives no explanation. Upon consulting a Hebrew-Latin dictionary, an authority among the learned Jews, for the word which in our English Bible is rendered *custom*, we find the following

definitions: *via, iter, mos, consuetudo*. Elsewhere in the Old Testament there are references to what most, probably every, "unbiased thinker" would regard as menstruation. Even in this very chapter the expression "sick with her flowers" is used; and in the Talmud, I am informed, there is distinct recognition of the truth that Jewish women menstruated.

"*Ninth*—Women have been known to bear large families and enjoy good health without ever menstruating at all. Can it be said that such women are sick? Must it not rather be admitted that they are enjoying a higher grade of health, that their reproductive systems are following more strictly a natural course, than belongs to sterile and menstruating females?"

Of course these women who do not menstruate but bear children are exceptions. The axiom universally acknowledged is, as expressed by Dr. Felix Robaud in his work on Impotence and Sterility (Paris, 1872), *without menstruation no fecundation*. Utopia would doubtless be a delightful place to live in; but where is it? How shall we get there?

"*Tenth*—Since procreation is natural to women during a part of their life, the child-bearing period must have a beginning. If puberty, when the organs are fully developed and prepared to fulfill the procreative office, is not the natural period for reproduction to begin, when else *is* the beginning of the child-bearing period? To postpone the reproductive act beyond its natural time is abnormal. Menstruation would not occur without such postponement."

The great error, as it seems to us, in these statements is confounding *puberty* with *nubility*. Because a girl is capable of conception it does not follow that she should be put in relations that will render this event probable. Premature production is injurious, says Raciborski, alike in the human species, in the animal and in the vegetable kingdoms; injurious alike to the producers and to the products. Women who marry young often are sterile during the first years of

their marriage, or have only small and delicate infants, and are peculiarly liable to abortions, while the mortality of infants born of such marriages is much greater than when the mothers are not married until after twenty years of age. Now if these statements be true—and they are not opinions, but the results of observation and the deduction of statistics—how can puberty, which usually occurs at fourteen or fifteen, be regarded as “the natural period for reproduction to begin”?

Again let us repeat that puberty is not synonymous with nubility, and the female is generally some years later in attaining the latter than the former.* The pelvis does not attain its complete development until twenty years, and ovulation is no proof of the full development of organs concerned in pregnancy and parturition. And if it be abnormal to postpone the reproductive act after puberty in the case of girls, why is it not abnormal to have such postponement in the case of boys? Such a mad world of moralists, legislators, and physiologists, who do not see that begetting and bearing babies are normal just as soon as such action and passion are possible! Here is a new gospel for them to learn—the gospel of propagation. Begin early, continue constantly, and that pathological enormity—call it menstruation, catamenia, moons, woman’s custom, poorly times, being unwell, flowers, sickness, or whatever euphemism you will—shall as surely be banished from this earth as St. Patrick banished snakes and toads from blessed Ireland!

Dr. King’s eleventh consideration is that the liability of women to congestion and inflammation from exposure to cold during menstruation is an argument in favor of the

*We have previously given a picture of the imaginary woman who conceives without menstruating, and keeps on industriously bearing children without pause for menstruation until she is forty-five years old, by which time she has added forty to the human family; and were the opportunity offered our ovulating maidens in all their budding beauty to be such a one, with all the typical perfection of her generative organs, or to be like their mothers, we fear they would be so unwise as to make the latter choice.

latter being a pathological process; and his twelfth and final one is derived from the peculiarly attractive character of girls at the advent of puberty. "*Most* beautiful and *most* attractive to the opposite sex" at that time; yet we think, notwithstanding Dr. King's italics, very few sensible men care to select a bride of sweet sixteen or under.

This new basis for uterine pathology will hardly last a year, and another Jason must seek for the golden fleece which we are sure Dr. King in all his voyaging has not found. Nevertheless, in taking leave of his elaborate paper—a paper more abundant in theories than in facts, and marked by peculiar forms of speech which have a sort of Herbert-Spencer stamp—let us give in conclusion his receipt for perfect female sexual organs, a receipt that stares upon us with a fearful array of italics, though we doubt whether the experiment will ever be tried on such a scale as to verify or disprove its value: "*There can be no doubt that impregnation during one of the several ovulatory periods that usually precedes the establishment of menstruation at the puberic age is strictly in accordance with nature, and the surest means of maintaining typical perfection, both functional and structural, of the reproductive organs.*"

INDIANAPOLIS.

CHLORAL-POISONING.

BY R. C. BRANDEIS, M. D.

The injurious effects of a continued use of the hydrate of chloral is seldom more markedly illustrated than in the following case, which fell under my notice a short time since.

On the 2d of last month I was asked to see Mrs. K., who was said to be suffering from a sore-throat. The patient was twenty-two years of age, a blonde, of strumous appearance,

greatly emaciated, and so weak that she was almost unable to rise from the chair upon which she was sitting. I was told that on Christmas-day she was taken with uterine contractile pains, and on the day after gave birth to a fetus of about three months. She recovered but slowly, and thinking that a change of climate might be of service, the family removed to Louisville, having previously lived at Chattanooga, Tenn. Although resident here for more than two months and surrounded with all the luxuries of life, and taking frequent drives in and about the city, the patient's condition improved very imperceptibly. Indeed for several weeks back there was a gradual failing in her health; she ate but little, and that with difficulty, and this condition gradually grew worse, until about ten days before almost every thing the patient took was regurgitated through the nose; and for several days past whenever food, either fluid or solid, was taken severe fits of coughing and choking would set in, which at times would threaten suffocation. The patient lost much sleep, and tossed about from side to side in bed in consequence of the difficulty of respiration.

I requested the patient to swallow a mouthful of milk, but on attempting to do so a spell of coughing set in so severe that she became almost cyanotic, and at last the milk was ejected through the nose and mouth. Suspecting a stricture of the esophagus, I auscultated that canal according to the rules laid down by my friend, Dr. Elsberg, of New York. Applying the stethoscope over the sixth cervical vertebra, the patient was directed to swallow a mouthful of milk. Although I listened anxiously, I failed to hear the peculiar gurgle described by Dr. E., and on moving the stethoscope along the left of the spinal column, down to the dorso-lumbar region, could not detect the passage of the milk. I suspected now a stricture of the esophagus near its pharyngeal opening. On introducing a spatula into the mouth I found the pillars of the fauces retracted, the soft palate and uvula flaccid and

dependent into the cavity of the pharynx; nor could they be moved during phonation, and but slightly during deglutition; and when I introduced the mirror of the laryngoscope into the mouth and applied it to the soft palate a severe attack of coughing set in. As this was the uniform result every time I attempted an examination, I desisted for that day, and directed a strong solution of bromide of potassium for frequent use as a gargle.

The next day the condition of the patient was unchanged, except a diminished sensibility of the pharynx, which enabled me to examine the larynx. This organ presented a general hyperæmia with considerable thickening of the epiglottis, due in all probability to the repeated coughing-fits and the irritation of foreign bodies coming in contact with it. The esophagus, which I attempted to dilate, was almost entirely occluded in consequence of the paralysis, and thus the dysphagia was explained.

There were no evidences of diphtheritic deposit, nor had the patient ever had any affection of the pharynx or respiratory tract previous to the present. All suspicion of syphilis was removed by the positive declaration of the husband and a close examination of the genitals and the lymphatics. The abortion seemed due alone to a rather ill-timed ride on horseback. The most careful examination and inquiry afforded me no clue to the cause of my patient's trouble.

I directed a course of quinine and iron, and gave beef-tea in tablespoonful-doses every two hours, with noticeable improvement in the general appearance of the patient, though the local disease was unchanged. On the 8th of May, for want of something better, I used the galvanic current from Drescher's two-cup battery, applying the sponges on both sides of the neck, varying this with Mackenzie's laryngeal electrode to the constrictors of the pharynx and the sponge up and down the spine. This treatment, proving of no avail, at the end of a week was abandoned.

The general appearance of the patient, however, continued to improve. I added strychnia to the iron and quinine, and directed daily baths in warm water and spirits. On the 18th of May I noticed a bottle of hydrate of chloral on the dressing-table, when on asking the patient whether she used this drug I was told that she occasionally took some when sleepless. Suspecting nothing further, but remembering the antagonistic action between chloral and strychnia, and thinking that the latter would fail to exert its full effects if the former was persisted in, I ordered the hypnotic to be discontinued. As soon almost as this was done the patient began to improve rapidly. The paralysis disappeared within a week, the cough and insomnia diminished apace, and on the 1st of June I discharged my patient well. In the interim she gained seventeen pounds in weight, and the various functions were perfectly restored.

I subsequently learned that Mrs. K. had been in the habit of taking chloral hydrate in increasing doses, until at the time mentioned she was taking from forty to sixty grains three or four times a day, in order to overcome the sleeplessness and pain which followed the abortion.

In view of these facts I have no hesitancy in pronouncing the above a case of chloral-poisoning; and though I have examined the German, English, and American journals at my command, I have been unable to find another case with a similar train of symptoms. The use of chloral has become so common, and the laity are taking it in so reckless a manner, that I could not refrain from publishing this case.

LOUISVILLE.

Reviews.

Cholera Epidemic of 1873 in the United States. By ELY McCLELLAN, M. D., Assistant Surgeon U. S. A.; J. C. PETERS, M. D., and JOHN S. BILLINGS, M. D., Assistant Surgeons U. S. A. Washington, 1875.

Of all the cholera epidemics by which our country has been visited that of 1873 was by far the mildest. In fact the question has been raised whether the disease that afflicted many of our towns and cities that year deserves the name of an epidemic. It assuredly was not widespread, and while it exhibited all its usual virulence in the places where it appeared, it showed no tendency to become general. In Louisville, for example—between which and the cities of Memphis and Nashville, where it was raging as an epidemic, there was daily communication by rail—only a few cases occurred, no diffusion of the disease following them.

The volume before us, published at the expense of the United States Government, affords much the most circumstantial history of the disease that has been produced in our country, and will be received every where as a highly important contribution to the literature of cholera; for, in addition to the facts related of the epidemic of 1873, it gives an account of the travels of cholera in Asia, Europe, and North America, and the most complete bibliography of the subject hitherto published. After a clinical history of the epidemic of 1873, and chapters on the etiology and the prevention of the disease and on the origin of the late epidemic, Dr. McClellan gives a narrative of cholera as it appeared in Louisiana, Mississippi, Arkansas, Tennessee, Illinois, Missouri, Kentucky,

Ohio, Indiana, Alabama, West Virginia, Georgia, Minnesota, Pennsylvania, Texas, Iowa, Dakotah, in the New York harbor, and in the United States army. This narrative is one of infinite interest to the etiologist, and is one which concerns all communities liable to visitations of cholera. It indicates the manner in which the malady is transported from place to place, and suggests the methods by which its threatened invasion may be turned aside.

When malignant cholera was impending our country in 1832 hardly any one doubted that the disease depended upon an aerial poison which, if it reached our shores at all, must be borne across the Atlantic Ocean; and the profession was busy with speculations as to where it would be likely to fall with greatest severity. We flattered ourselves at Lexington that the poison could hardly remain long upon the elevated plain on which that beautiful city is built. Cincinnati and Louisville, standing in a valley upon the banks of the Ohio, appeared to us as affording conditions most favorable to the rise and prevalence of the epidemic. But our speculations were soon negatived by experience. Cholera came toward the close of the summer of that year, and was fatal enough in Cincinnati, but passed lightly over Louisville; and the year following it fell upon Lexington with a severity hardly surpassed any where in the history of the epidemic. Even at that early day it began to be claimed that the disease was not dependent upon any general atmospheric disturbance, but was caused by a virus which was carried about by men in their travels.

This is the opinion contended for in the work before us, and this, we may add, is coming to be the received opinion of the profession all over the world. Cholera is not a contagious disorder. Nurses and physicians are not more apt to contract it than persons who avoid all intercourse with its victims. It is not communicable by inoculation or even by swallowing the dejecta of patients laboring under the com-

plaint, and yet it is propagated from subject to subject. It is imported, there is reason to believe, always from the locality in which it took its rise early in the present century. There is nothing that emanates from the body of the sufferer immediately to engender it; but when the morbid excretions have been exposed to the air after a certain period of incubation they acquire the power of originating the disease. Such seems to be a true account of the propagation of cholera, which thus is portable without being directly communicable. It is always carried from one point to another, but is not imparted directly from individual to individual. Time must elapse for maturing the germs, and they must find a nidus suited to their development. They do not reach maturity in all soils, and there are localities which, though often taken in its way by the epidemic, have never been visited by cholera.

The poison therefore demands conditions for its activity. It requires heat and moisture; but heat and moisture, aided by no matter what amount of vegetable decomposition, will not originate the poison. The miasm, the germs must be introduced, and then, if circumstances favor, the disease prevails; if not, it ends with the case importing it. At Lexington a few fatal cases occurred about the beginning of frosts in 1832, but the cold arrested the disease, and nothing more was heard of it until the 1st of June, the summer following, when it broke out in a truly epidemic form.

The authors of this work think they have shown how cholera has been introduced in nearly every case, and are satisfied that where this has not been done the failure is due to the want of a full history of the case. They are also convinced that water is the vehicle through which the cholera-germs are introduced into the human system. The thought is not a palatable one, but the evidence accumulated tends to show that we drink the poison of cholera. We are by no means convinced of the fact. Especially we think facts are wanting to prove that cholera is always propagated by germs

carried into wells and springs of water from the dejections of cholera patients; but water seems to have an active agency in its diffusion, and the germs may be carried to it independently of privies, washing rains, or seepage. They may be transported by the wind and lodged in our drinking-water.

Taking this view of the origin of cholera, Dr. McClellan and his coadjutors have great confidence in the power of communities over the pestilence. They are convinced of the practicability of stamping it out by proper hygienic measures; nay, they believe it was thus held in check during its late march through the United States. They are persuaded that but for the interference of sanitary art it might have attained the fatal malignity of former epidemics.

We regret that we are not able to share these cheerful conclusions with our authors. We are far from believing, as they do, that hygiene had any decided agency in shaping the course or character of cholera as we saw it in 1873. We greatly fear that its very limited diffusion was the result of other causes; but we shall not urge our doubts on this subject, since confidence in the efficacy of sanitary measures is itself salutary, and leads to action which tends to circumscribe the spread of cholera. Beyond controversy, the spread of the disease depends in every case upon local causes, which wise action may to a great extent remove, and the recognition of this fact is a most important step toward the suppression of the pestilence.

Of treatment, every plan ever suggested is referred to by Dr. McClellan as having been instituted at the various points at which the late epidemic of cholera broke out. At New Orleans it is stated by Dr. C. B. White that "under the hypodermic use of morphine and atropia, or morphine alone, immediate relief and ultimate recovery was the rule." The same was the result of the use of calomel and quinine. Calomel was used in heroic doses by many physicians, who claim for the remedy thus employed the most beneficial re-

sults. Others exhibited the remedy in small but frequently-repeated doses. The cases collected by Dr. McClellan, 7,356 in number, show the following results: "In the treatment by calomel, in large and small doses, there was a mortality of twenty-three per cent; calomel and opium, there was a mortality of thirty-one per cent; calomel, opium, and acetate of lead, the mortality was forty per cent; calomel, opium, and stimulants, the mortality was fifty per cent." The preparations of iron appeared to be of decided efficacy, and the acid-treatment succeeded admirably in the few cases in which it was tried. In the 7,356 cases the mortality was fifty-two per cent; but Dr. McClellan adds that "the exhibition of opium, followed by alterative doses of calomel and absolute rest in the recumbent posture, almost invariably arrested the disease in the premonitory stage."

This faithful history of the epidemic cholera of 1873 is likely to take a permanent place in the literature relating to that scourge of the human race. As a work of reference it possesses great value. It constitutes a magazine of facts to which all students seeking to acquaint themselves with the laws of cholera must have recourse. Its interest is enhanced by the maps interspersed through it.

The Climate and Diseases of America. By DR. JOHANN DAVID SCHOEPFF, Surgeon of the Anspach-Bayreuth Troops in America. Translated by JAMES READ CHADWICK, M. A., M. D. Boston: H. O. Houghton & Co. 1875.

This pamphlet was unearthed by Dr. Chadwick while ransacking an antiquarian bookstore in Erlangen. It consists of letters addressed to Prof. Delius, of Erlangen, during our revolutionary war. The author was surgeon of a regiment of Anspach-Bayreuth troops, hired by the king of England to fight against his rebellious American subjects. Dr. Schoepff

gives an account of the colonists not at all flattering to their national vanity. He says of them: "Lank, feeble, weak, without the bloom and hardy aspect of youthful health, the American is more like a rapid-growing weed than an oak, which attains to a durable strength by a slow growth. A single glance is all that is required to distinguish an American from a European; and if the latter has once withstood the hardships of the first change of climate, he may forever defy competition with the native American."

He was quite as little pleased with the climate of the country. His impression is thus expressed: "If ever America should have a Thomsom (thus far she has not produced even a tolerable poet), I can not imagine which season of the year he would find it worth while to celebrate." Thus on the 20th of August, after a long series of hot days, he saw the thermometer suddenly fall to 63° and rise on the 24th to 93° ; and he adds, "It is incredible what disagreeable physical sensations are produced by these sudden contrasts, not to mention the prevalent diseases." "This winter" (1781), writes Dr. Schoepff, "is precisely the reverse of the last. It almost seems to me as though Heaven wished to give us during our stay a sample of all the marvelous peculiarities of the climate, and then perhaps to send us home in peace. The summer of 1779 was unusually moist and unhealthy; it was followed by an exceptionally cold winter, and this succeeded by a burning-hot summer. The present winter has been so mild that I have not seen the thermometer below the freezing-point of Fahrenheit more than three times; it has commonly stood between 40° and 60° . We have had but few fires, and have often dined with open windows and doors. The grass has remained quite green, and in many spots has even been growing. Instead of snow, of which we had a sample as early as November 1st, we subsequently had rain. We had a Carolina winter. Last night with a north-east wind we had a fall of snow, but it will not lie long. The coming summer

will probably be unusually cold, in order to complete the list of paradoxes."

Those who believe that our climate is undergoing a permanent change will see from this that it was subject to the same extremes a century ago that we experience in our times. Dr. Schoepff was so horrified by the climate that he was impatient to get back to "fatherland," and he could even praise the sharp north-west winds, because they hastened the voyage of Europeans homeward. And yet, one would think, he might have been content to stay from home with his regiment a great while even amid such winters, since it is told of his master, the margrave, that he was in the habit of "belaboring his subjects, high and low, noble and civilian, with a cane in broad daylight." And so it is related of Charles Frederick William, margrave of Ansbach, that as he was one day walking with his mistress she expressed the wish to see a chimney-sweep, who had just appeared upon the top of a house, fall to the ground; whereupon his highness, to gratify her, shot the man dead. "To the widow, who came to crave his mercy," the historian adds, "he made a gift of five florins."

"It is wonderful," remarks Dr. Schoepff, "that during this whole war (1775-83) no contagious fevers have spread among the troops." They were seen in the crowded hospitals, but never prevailed outside. How "insignificant the *rolé* played by unripe fruit" in the production of dysentery was shown, as he remarks, by the fact that "the young girls and children of this country, whose chief delicacies are unripe and sour apples, especially when baked and served with milk," enjoy fine health.

Dr. Schoepff relates a marvelous success with inoculation in small-pox. "There are," he says, "very few instances—I might almost say none—of any ill effect from inoculation. I have heard trustworthy people assert that they have not lost one out of three thousand or four thousand individuals whom they have inoculated. I was an eye-witness of the

following event: More than three hundred prisoners who took the small-pox last winter were confined in a sugar-house without other beds than woolen blankets upon the hard floor, without other diet than the above-mentioned rations, without treatment other than a few cathartics; yet all recovered in the most favorable manner. If there were no other advantages attending inoculation, the relief from the habitual dread of catching the disease would be reason enough for continuing its practice."

We are under many obligations to Dr. Chadwick for bringing this brochure to light and presenting it to the profession in so neat and tasteful a dress. We have read it with great pleasure. Its interest is much increased by the introduction and the notes added by the translator.

Clinic of the Month.

TREATMENT OF CHRONIC ULCERS.—In a valuable article on this subject contributed by Dr. B. A. Watson to the New York Medical Journal he says:

"I am now satisfied, after having practiced skin-grafting in hospitals more than four years, during which period I have had the opportunity of witnessing the application of this method to the healing of a large number of chronic ulcers, and comparing it with the other methods now in use for the accomplishment of the same object, that the following are some of the advantages which may be safely claimed for it: It enables us to heal chronic ulcers which otherwise would go with the patient to his grave; to heal others which have resulted from extensive burns and complete destruction of the integument over a large surface of the body with a rapidity formerly unknown; and also that it produces a more healthy cicatrix, and prevents to a very great extent the deformities which otherwise would exist. The fact that the application of a few skin-grafts to an ulcer usually produces an improved condition, a vitalizing effect, I think will be readily admitted by those who have watched the operation; but the larger the number applied the better the results obtained. The ulcer is, I believe, temporarily improved, even though the grafts fail to become adherent, but the most marked improvement is seen in cases where a large number of points of cicatrization have formed.

"The unhealthy ulcer is frequently transformed into the healthy with surprising rapidity. The rapidity of the reparative process is apparently due in the first instance to the

vitalizing effects of the grafts upon the granulations, whereby they are enabled to reproduce themselves with a rapidity very rarely seen, except as a sequel of this method; and secondly, to the formation of a large number of new points of cicatrization, which rapidly increase in size, while cicatrization at the periphery of the ulcer is also very much hastened. The use of small portions of healthy integument is far preferable to the epidermic scales or lymph. The results are much more uniform and certain. I prefer small portions of integument to large ones, and believe that our greater success with the former is due largely to the fact that these are more readily kept in actual contact with the surface of the ulcer than the latter. The larger portions of integument are liable to be raised from the surface of the ulcer by the formation of pus beneath them. My experience justifies the conclusion that *perfect cleanliness* of the ulcer is more important than any thing else. Every particle of dead tissue *must be removed*. Should the smallest particle intervene between the graft and the surface of the ulcer, failure instead of success may be confidently anticipated. This one condition being constantly kept in mind and fully attained, the surgeon may then apply grafts to chronic ulcers, whether of constitutional or local origin, with the assurance that at least seventy-five per cent of all those applied will become adherent and form new points of cicatrization. I am accustomed to secure the required cleanliness by the use of the caustics, emollient poultices, and wet compresses. It often requires eight or ten days to prepare the ulcer for the reception of the grafts, and during the preparation I prefer to have my patient kept in bed for reasons previously mentioned. Although a very careful preparation is absolutely essential to success, nevertheless the proper application of the grafts is of equal importance. I am in the habit of applying the grafts in rows. The object sought in this method of application is the retention of the grafts in their place with the use of as little plaster as

possible. I conceive this point to be very essential. When a large amount of plaster is used the ulcer is to a great extent covered with it, and beneath this plaster accumulate the discharges; the plaster is very frequently raised from the grafts, and the grafts may be moved from the point on which they were originally applied. The direction of the line will depend necessarily on the shape of the ulcer, since the plaster is used to protect the grafts and retain them where they were originally applied. Having placed one row of grafts on the surface of the ulcer at regular intervals of half an inch, I now proceed to cover this with a strip of isinglass plaster somewhat wider than the grafts. The other grafts are now put on in the same manner till the ulcer has been sufficiently grafted, after which I place a wet compress of sheet-lint over it, and then apply with moderate firmness a roller-bandage, and require it to be wet with water about every four hours. This dressing remains undisturbed for a period of forty-eight hours, when I remove the bandage and compress with much care lest I might displace the grafts, but the plaster is not disturbed. The transparent character of the plaster used enables me to see the changes which have taken place beneath it. The ulcer should now be carefully cleansed with water and a similar dressing re-applied. Whether the ulcer ought to be dressed daily or every second day will depend on its condition, but the plaster should remain undisturbed for a period of six or eight days."

BROMIDE OF LITHIUM.—The *Revue de Therapeutique* gives the following as the results of Dr. Roubaud's tests of this drug: 1. Bromide of lithium is a drug which has a twofold action; 2. It possesses in a high degree the lithontriptic qualities which are universally recognized in the salts of lithia; 3. It affects reflex sensibility in a more energetic manner than the other bromides, without the unpleasant effects on the heart which the bromide of potassium has; 4. Consequently

it takes its place in the first rank of antilithic and sedative drugs, and its action is especially valuable in cases of the uric-acid diathesis, which are accompanied by painful phenomena, and in the neuroses which are so often associated with the presence of uric acid.

THE MEDICAL USES OF THE PAPAW.—The papaw, *carica papaya*, as found in tropical and subtropical America, is recommended in the London Medical Record, by Dr. Evers, for various medical purposes. He says, "I have employed the milky juice of the unripe fruit in the treatment of splenic and hepatic enlargements, and with good results. I have treated sixty patients with this drug, and in thirty-nine instances a cure was effected; in eighteen cases the results were not reported; and in three cases (of enormously enlarged spleens) relief was afforded. The mode of administration is this: about a tea-spoonful of the juice is collected and mixed thoroughly with an equal quantity of sugar; this mass is divided into three boluses, one to be taken morning, noon, and evening. For children, a single drop of the juice mixed with sugar is sufficient. The pulp of the unripe fruit (the rind being removed), 'mashed' up with hot water, might be applied as a poultice over the enlarged gland. On this external application, however, I do not place much reliance. No ill effects result from the internal application of the drug. Some of the patients treated complained of a feeling of heat in the stomach, nothing more. When symptoms of gastric or intestinal irritation occur I have found it necessary to combine opium or hyoscyamus with the juice. The drug appears to me to act as a tonic and deobstruent. My plan for ascertaining that there has been an actual diminution in the size of the enlarged gland was to mark off with the nitrate of silver the limits of the affected organ when the patient applied for treatment, and after about a fortnight or month percuss and mark off again in the same way. In very bad cases I have

seen a decrease of half an inch to an inch in perpendicular dullness. Patients have told me again and again that they felt considerably lighter in the side, and that their digestion was now good. I believe that the drug is most active in cases where the stage of ague-cake—*i. e.*, the genuine amyloid spleen—has not yet been attained; in fact, when the deposit in the gland is still albuminoid. It acts much more rapidly than the hydrochlorate of ammonia, the bromide of potassium, or the external application of the biniodide-of-mercury ointment. From twenty to twenty-five days is the longest time that a patient is generally kept under treatment. A nutritious and liberal diet is also an essential adjunct in these cases."

ON OXALURIA.—Dr. Saundby thus summarizes a paper on this subject in the *Edinburgh Medical Journal*: 1. In the causation and treatment of oxaluria by diet the quantity is more important than the chemical constitution of the food; 1. The mental disturbance which sometimes accompanies oxaluria does not depend upon that condition, but both are due to general causes in the constitution and surroundings of the patient; 3. Excessive oxaluria marks a further stage in that form of dyspepsia usually characterized by lithuria; 4. There is no specific treatment for oxaluria.

MUSTARD FOOT-BATH IN URTICARIA.—A writer in the *Tribune Médicale* recommends the use of the mustard foot-bath in cases of urticaria. In his own case, after trying innumerable remedies, he was about to abandon all hopes of relief, when, one day, while suffering from a peculiarly aggravated attack of his old enemy, complicated by an excruciating headache, and hoping to relieve the latter, he plunged his feet into a mustard bath. The relief was instantaneous, and it seemed as though the skin-disease had disappeared by a wave of the hand. Five other cases were subsequently treated

by the writer with similar relief. The treatment is of course understood to be only palliative, and has no influence in preventing recurrence of the disorder. (Philadelphia Medical Times.)

AMBLYOPIA POTATORUM.—Dr. Charles Bull, ophthalmic surgeon to the Charity Hospital, New York, writes in the American Journal of Medical Sciences that he has obtained very excellent results in this increasing affection from the internal administration of bromide of potassium, and now esteems this drug as a very important adjuvant in such cases. Dr. B. states that Quaglino has convinced himself that its action is more prompt and decisive than other remedies employed for this purpose, provided the dose is steadily increased and carried up to toleration. Quaglino commenced with fifteen or thirty grains daily, dissolved in from four to six ounces of water, and divided into three doses; and this dose was increased by fifteen grains daily until the patient complained of fatigue in the legs, excessive somnolence, some difficulty in speaking, and weakness of memory. These symptoms, Dr. B. found, usually occur when the dose has been increased to three drachms daily, though they may not appear till four or even five drachms have been administered. Quaglino states that after his patients had taken two or two and a half drachms of the drug what he calls the "nervous irritation" of the retina diminished, and the vision became clearer; and this was particularly so for objects situated at some distance. He found that even in inveterate cases which had lasted some time the malady was usually arrested, though there was not generally any increase in the acuity of vision.

"My experience," Dr. B. writes, "in these cases has been very nearly the same as that of Quaglino. I have usually commenced with moderate doses, say ten grains three times daily, and have increased each dose by five grains till the patient began to show some of the toxic effects. When this

point is reached it is better to omit the drug entirely for a few days, and then recommence with a somewhat smaller dose than the highest one reached, and gradually diminish the daily amount until we can discontinue the use of the remedy altogether.

"I have not yet employed this method of treatment in all classes of cases of amblyopia *ex abusu*, but have confined it to those in which the ophthalmoscope shows no sign of any change in the optic nerve other than a slight amount of congestion. But the more cases of alcoholic amblyopia I see the less reliable does the vaunted strychnia appear, and in this article I take the opportunity of modifying a second time my statements in regard to the use of strychnia in affections of the optic nerve. I believe that in cases where an atrophic degeneration exists in the nerve-structure, from whatever cause this may proceed, strychnia is by no means so sure a remedy as has been supposed, and that we should come to look upon it certainly as a remedy to be employed, but by no means one always to be relied on. I do not think it possible to classify these cases of amblyopia *ex abusu* in such a manner as to be able to say exactly in what cases any particular form of treatment is indicated; nor do I wish to be understood as making the same vaunt for bromide of potassium as a remedy in these cases as has been made for strychnia. They are both indispensable, and should always be employed."

USES OF CHLORAL AS A PRESERVATIVE.—Dr. W. W. Keen communicates an interesting paper to the American Journal of Medical Sciences in which he details his experience in the use of chloral as a disinfectant, preservative, etc. He says he knows of no agent which will preserve *fluid* and semi-fluid specimens to any thing like the same extent as chloral. The expense is also much less.

"A gallon of a solution of chloral gr. xv ad fl.℥j will cost sixty-six cents, and if the damaged chloral be used (and Dr.

Longstreth has used nothing else) the cost is but thirty-three cents. The jars also need not be hermetically sealed; hence ordinary jars closed by a stopper, a cork, or even covered only with rubber cloth, or some such means, will answer perfectly well, and the labor and cost of sealing be avoided. Any evaporation of the water only makes the solution stronger. The specimens are thus perfectly accessible at all times. Often when examining a special point much could be settled by the handling of a specimen.

"Preservation of pus, urine, and other fluids.—For purposes of study for some days, or for preservation indefinitely so that these fluids may be used at any moment, chloral offers great advantages. It should be added in crystals and not in solution. I generally add a pinch or two to a four-ounce bottle without being very exact as to measurement. I judge it to be about gr. x ad fl.℥j. The advantages especially in the urine are very great. It is not always convenient to examine a specimen at the moment of its reception. In summer the specimens will spoil very quickly; but if chloral be added to it, weeks and months may elapse before any change occurs.

"In many cases after operations, in paraplegia, incontinence, etc., the urine has to be collected in a cup or other vessel, and in spite of every possible care, even in private practice, the vessel soon smells, and the urinary odor, especially in summer, is often very offensive as well as deleterious to the health. In several cases I have tried the plan of putting a few grains of chloral into the vessel whenever emptied and replaced. From that moment the room and even the bed, bedding, and vessel were absolutely freed from all odor whatsoever. It would prove also, I think, a very valuable agent for injection into the bladder in cases of retention or inflammation, etc., in which there is any decomposition of the urine.

"I have tried it as a disinfectant in cases of offensive ulcers, abscesses, cancer of the womb, caries, ozena, etc., and I like it better than any other I have tried. It has the advantage

over carbolic acid of having very little smell, and over the permanganate that it does not stain the bedding, clothing, etc. As a dressing to ulcers it acts as a stimulant to the granulations, destroys fetor, diminishes the discharge and makes it healthy, and so will often change an unhealthy into a healthy sore. For both these purposes I use it generally about gr. v-xv ad fl.℥j.

"In erysipelas I have tried it twice as a dressing, and it succeeded well. As an injection into sinuses in strumous abscess, in caries, and other similar cases, the Drs. Dickson write of it in high terms, and I can confirm their observations from my own experience after numerous trials. They also have tried it as an ointment (℥ss ad fl.℥j) with success, and as an injection in gonorrhea (gr. xx ad fl.℥j) when the discharge has generally ceased after three days or thereabouts."

TREATMENT OF DIARRHEA.—Dr. Hartzen writes (Virchow's Archives) that whatever be the remote cause of diarrhea the immediate cause lies in increased irritability of the intestine. We should then be careful not to increase this irritability. Instead of at once partaking ourselves to metallic preparations, such as zinc and bismuth, salts, and other astringents, we should exhaust all remedies first of all which work by soothing. Warm fomentations on the abdomen are hardly to be too warmly lauded. Among drugs, first of all opium must be named, and it is to be noted that it disturbs the digestion when given in large doses, and then increases the diarrhea. If the diarrhea be very excessive, so that the opium is carried off without being absorbed, morphine injections are indicated. Enemata have always this defect, that they irritate the large intestine, firstly by the instrument and next by the volume of the fluid injected. They ought therefore only to be used in cases of necessity. Ipecacuanha is of service in cases where opium does not succeed. If both of these fail,

bismuth may be tried, although it works as an irritant in the long run. Tonics and astringents are indicated only in atonic diarrhea. Where even the slightest irritation exists—as in cancer, tuberculosis, etc.—they are absolutely contra-indicated. The idea of making a crust form over ulcers in the bowels by means of astringents he holds to be a false hypothesis. If the astringents were able to form such crust, the healthy part of the bowel would be made as useless as the diseased parts. Besides, such a crust would very soon be removed as well by the contents of the bowel as by the greater suppuration from the ulcer. The astringents would only have the result of causing an injurious irritation of the ulcers.

A VEHICLE FOR CHLOROFORM.—Prof. Jaillard says that in order to prevent the irritating action of chloroform on the mucous membrane of the mouth it is only necessary to administer it in milk, which, if wished, can be sweetened.

HEART DISEASES.—Dr. Fothergill, from whose lectures we have quoted so liberally, thus writes in the *Lancet* concerning the treatment of primary diseases of the heart:

"1. It is of the utmost importance in the treatment of primary disease of the heart to reduce to a minimum the calls upon that organ. Consequently light labor alone must be attempted; and rest in bed is often very desirable at the commencement of a course of treatment, as well as at intervals afterward.

"2. Frequently much relief can be afforded when dropsy is present by unloading the distended venous system. Brisk catharsis gives great relief and does not depress the patient.

"3. In all cases the heart must be acted upon directly by agents which increase the vigor of the ventricular contractions, of which digitalis is the chief. This agent may be given uninterruptedly for years without any so-called cumulative action, if the cases are properly selected. If given

in improper cases, unpleasant consequences may follow its administration.

"4. It is also very desirable that the nutrition of the heart be maintained by good food and iron in addition to the means mentioned above. Improvement in the general condition facilitates the action of the special remedies."

GONORRHEA INJECTION.—Dr. Haberkorn, of Berlin, recommends the following, in tea-spoonful injections, thrown into the urethra two or three times daily:

R. Quinæ sulphatis, gr. vj;
 Glycerinæ, ʒ ij;
 Aquæ, ʒ vi;
 Acidi sulphurici diluti, gutt. v. M.

ITCH OINTMENT.—The following is very warmly recommended by Dr. W. F. Clemens:

R. Acidi arsenici, gr. ij;
 Potassæ carbonatis, gr. x;
 Solut. alcohol, saponis, . . . ʒ j;
 Aquæ, ʒ j. M.

It is to be rubbed twice daily on the affected parts, and cure follows in a few days afterward. (*Allgemeine Medizinische Centralzeitung.*)

FISTULA.—M. Daniel Mollière, surgeon of the Hotel-Dieu de Lyon, thus sums up the elastic ligature in the treatment of fistula: 1. There is little or no pain in connection with the operation. 2. There is no hemorrhage. 3. Recovery is rapid. 4. The patient is not confined to bed, but may go out at once if he like. 5. The most delicate person may be operated upon. 6. Anæsthetics are not required. 7. There is very little suppuration. 8. And lastly, even when the operation has been begun with the bistoury, it may be bound up with the elastic ligature. Once the ligature is in place, the two ends, first passed through a little ring of lead, are put on the

stretch. At the maximum of tension the ring is crushed with a stout pair of pincers in such wise that the fistula is included, strangulated in fact, within an elastic noose, and the tension maintained until the ligature cuts through the parts and is discharged.

ON THE TREATMENT OF A COMMON COLD.—Dr. J. Milner Fothergill writes to the Practitioner that there are few ailments more commonly put before us for treatment than an ordinary cold. Of course they are most frequent in winter, but nevertheless they occur at all seasons, even in the burning days of July. Whenever and wherever they are met they are the consequences of a chill, either to the general surface or to a portion of it. Ordinarily the body temperature is maintained by the equilibrium existing betwixt the internal heat-producing area and the external heat-losing area—the surface—according to Rosenthal. When excessive heat-loss is not met by increased heat-production, a chill or lowering of the body temperature is the consequence; or if heat-production has been great—as in a ball-room, for instance—the cutaneous vessels are dilated, and if the surface be suddenly exposed to cold, these dilated vessels are apt to be paralyzed instead of incited to contract, and then heat is rapidly lost from the mass of warm blood in the cutaneous vessels. The catching cold or the escape from doing so depends upon the state of the vessels of the surface and their capacity to contract or the opposite. Consequently we can see that catching cold or escaping it under apparently identical circumstances depends upon a condition far removed from either vision or sensation. That the *modus operandi* of catching cold under these circumstances has afforded opportunity for difference of opinion can be no matter for surprise. Rosenthal, however, has scientifically investigated the matter and unraveled the mystery. Where heat-loss is met by heat-production at the time no unpleasant consequences result; but when the

heat-regulating processes are delayed the loss of heat and fall of temperature at the time are followed by an excessive heat-production, constituting a pyretic condition. This in its simplest form is recognized as a cold. Usually it is accompanied by some disturbance of the respiratory tract, either in the turbinated bones, known as nasal catarrh, as sore-throat, or as an attack of bronchitis. Of course these local inflammations may become very severe, and in bronchitis life is commonly threatened. There is at this point great vascularity of the internal heat-producing area and a dry skin, whose heat-losing power is impaired from the loss of the aid of perspiration; for Leyden found that even the insensible perspiration is lost in increasing fever.

What are the indications furnished to us for the treatment of this state of matters? Obviously to restore the balance between the two heat-producing and heat-losing areas; and in order to do so we resort to such measures as shall increase the amount of blood in the outer area and so diminish the amount in the internal area; that is, to increase heat-loss and lessen heat-production.

The measures ordinarily resorted to for such ends are hot fluids, a warm bed, and often a dose of opium in some form. The result of such combination is the induction of perspiration, especially if the patient lie in bed next morning and have more hot fluids; for perspiration is most successfully induced from seven to nine o'clock in the morning. If the cold be caught at once by such measures, the impending pyrexia may be averted and the temperature equilibrium be maintained. More commonly, however, the case is more advanced when seen, and the pyrexia is clearly established. Under these circumstances the treatment will need to be more prolonged, and the restoration of the heat-balance will not be so readily attained. The condition of increased vascularity of the heat-producing area with arrested action of the skin is to be met by the administration of agents which possess

the combined properties of lowering the heart's action and relaxing the vessels of the skin; or, in other words, which relax the two muscular ends of the circulation, the central and the peripheral. The impression so made produces a diminution in the blood-current and a dilatation of the vessels of the heat-losing area. As a consequence of this there is less blood in the internal area and less heat-production, with cutaneous vascularity and increased heat-loss. Rarely, however, is any impression made upon the pyrexia until the action of the skin is excited and the cooling effects of exhalation attained. The administration of nauseant diaphoretics to attain these ends has been the rule amid practitioners and housewives. The time-honored antimonial wine has scarcely yet yielded to its rival, ipecacuan, nor perhaps is it desirable that it should. Their combination is good and to be recommended. In adults iodide of potassium in guaiac mixture forms an excellent combination, especially when the cold is combined with rheumatic pains or tonsillitis. These internal remedies may be aided in their action by external measures, such as warm baths. With children it is easy to wrap them up in a blanket wrung out of hot water, to inclose them so wrapped in a dry blanket, and to put them into bed. This may be repeated as required, and sufficiently aids the remedies given by the mouth. Measures for giving adults a warm bath in bed are now to be procured at little cost. After perspiration is once induced there is usually a gradual fall of temperature, but the normal may not be reached for some days. There is a decided tendency to excessive heat-loss after the action of the skin has been established, even though the temperature indoors be above the normal. Experience has taught humanity to wrap up well when passing through a cold, especially when it is breaking. Ere the action of the skin is re-established the impression of external cold is grateful, but afterward chills are readily experienced. The increase of blood in the heat-losing area permits of rapid

heat-loss. When a cold is caught during the restorative period it is usually a fixed one, and not rarely serious illness is the consequence.

When the action of the skin is re-established it not uncommonly happens that perspiration is profuse, even while the patients wrap up well to shield themselves from heat-loss. This is a troublesome stage in the history of a cold. Here mineral acids with vegetable tonics are indicated, and perhaps best of all dilute phosphoric acid in cascarilla or cinchona. In the treatment of influenza, vegetable acids along with a bitter tonic often produce a decidedly good effect. In addition to the general effect of the tonic the arrest of the excessive activity of the sudoriparous glands is desirable. This stage is sometimes a prolonged one, and the maintenance of a pyretic condition by the rapid loss of heat and then increased heat-production is not an uncommon event. If this condition be pronounced, the best line of treatment is that of quinine with an astringent mineral acid. Quinine is well known to possess an apyretic action, probably to some extent by its effects upon the nerve-centers, and more, according to the observations of Binz, upon its checking the ozonizing action of the blood. The effect of the astringent mineral acid upon the skin is to check secretion, and by these combined measures a satisfactory restoration to the ordinary state of health is induced.

In the treatment of the bronchial affections which so commonly accompany an ordinary cold it is not a matter of indifference what expectant remedy is selected. As long as the skin is dry and the bronchial lining membrane tumid and secretion arrested, ipecacuan with acetate of ammonia is indicated, or a little antimony may be added with advantage. When the skin is once thrown into action and the bronchial secretion also established, then acid with syrup of squills are suitable measures; but it is not a successful plan to administer squill with acids until the skin is moist. When there

is a tendency to the free action of the skin this latter combination in full doses is a useful plan of treatment. Neither is the union of carbonate of ammonia and senega in severe cases indicated until the secretion alike of the skin and the bronchial lining membrane is thoroughly established.

REST IN TETANUS.—Dr. Renzi finds that both in animals and human beings attacked by tetanus light renders the tetanic contractions more frequent and more intense. It may likewise be experimentally demonstrated on animals that absolute rest and the absence of every cause of excitement render tetanus less violent and less fatal. Of three cases of acute tetanus in which complete rest alone was employed two were cured. The patients were placed in a perfectly dark and isolated room, every noise and excitement was avoided, and the patients were only visited at long intervals to give them drink. In the fatal case hydrate of chloral had been administered in the form of injection, and seemed to still further impede the respiration already affected by the progress of the disease. (British Medical Journal.)

CROTON CHLORAL.—The following are some of the conclusions of a paper by Dr. Weill, in *Bull. Gen. de Thérap.*, on this agent: 1. Its physiological action is different from that of chloral. 2. It is hypnotic in the same way and generally in smaller quantity than the other drug. 3. It exercises a special action on the sensory cranial nerves. 4. In moderate doses it has no effect on the pulsations of the heart and on the muscular tonicity, and it does not slow the respiration and lower the temperature as much as chloral. 5. In extreme doses it destroys life by arresting the respiration. 6. The lesions found at the autopsy of animals killed by it consist in an intense hyperæmia of the meninges, especially those of the encephalon. 7. Its therapeutical employment is indicated (a) in neuralgias of the trigeminus; (b) in other

neuralgias, and to relieve pain in general; (c) in spasmodic affections of the nervous system; (d) to quiet cough in certain chronic affections of the respiratory organs; (e) to procure sleep. 8. The contra-indications to its employment are an inflammatory state of the digestive organs and a predisposition to cerebral congestions. 9. Its taste is more disagreeable than that of chloral, and needs to be masked by a corrective. The extract of licorice seems best for this purpose. 10. It can not be given hypodermically. 11. The dose should vary according to the age, the particular susceptibility of each person, and the effects desired. Dr. Weill says, "If we wish only to procure sleep, we can begin with from seven to fifteen grains, and in the great majority of cases this will be sufficient, at least when the pains are not such as to make large doses of a narcotic absolutely indispensable. In such cases we may administer at once thirty, forty-five, or even sixty grains. In the neuralgias or other nervous affections the practice of the English physicians is especially applicable; one, one and a half, or three grains repeated every quarter of an hour, every half hour, or every hour until relief is obtained; and we are often astonished at the rapidity with which it comes."

STERILITY.—Among the causes of human sterility Dr. Marion Sims mentions the projection of the neck of the uterus into the vagina. If the neck, says he, projects half an inch, sterility is probable; if one inch, it is almost certain; if one inch and a half, it is inevitable. Now Dr. Berruti Giuseppe, of the University of Turin, maintains that in two women out of three the neck of the uterus projects naturally half an inch (*il collo dell' utero proemina in vagina per un mezzo pollice*). The subject is one of much moment, and the disparity of opinion, considering the importance of the interests at stake, merits the most careful consideration. (*L' Independente del Torino*.)

METHOD OF OPERATING IN ANUL FISTULA.—M. Jules Felix, of Brussels, employs a ligature of stout English silk, one end of which is passed through the fistula and back through the anal opening. The ligature is then moved backward and forward with a see-saw motion, cutting its way rapidly through the intervening tissues until a complete section is made, as with the *écraseur*, without the loss of a drop of blood. (*Medical Times*.)

DRESSING FOR ULCERS.—R. Olei cadini, ℥ss ad ℥i ; pulv. calci sulphat, ℥vj . M. To be thinly spread on dressings for ulcers, and renewed three, four, five, or six times daily, taking care to cleanse the ulcers after the dressing has been removed. Of especial value in the treatment of profuse and fetid suppuration. (*Ibid.*)

TREATMENT OF LEAD-COLIC BY CHLOROFORM.—Chloroform has lately been used in lead-colic, both externally and internally (by inhalation), with advantage. Dr. Barduzzi has employed the following formula with success in one case which had resisted other forms of treatment:

R. Chloroformi, ℥i ;
 Syr. acaciæ, ℥ii ℥vij ;
 Aq. destillat., ad fl. ℥vj . M.

This potion is administered in two parts, with a quarter of an hour interval. It was given three times in thirty-six hours, with the effect of relieving the patient greatly. Inunctions with a chloroform embrocation were at the same time employed on the abdomen. (*Ibid.*)

SYPHILIS.—Hr. Henry Lee, in a recent lecture, expressed his belief that the product of primary syphilis is inoculable artificially, so as to produce the same effects as when it was naturally acquired; that the results of secondary manifestations are inoculable so as to produce the same results; that

the secretions from mucous membranes in syphilitic patients are very often the means of communicating the disease, and may sometimes be artificially inoculated.

As to treatment, Mr. Lee said that at whatever period of the disease we find the specific adhesive form of action, whether as a primary indurated sore or an affection of the inguinal glands, or as papular, tubercular, or scaly eruptions, he held mercury to be indicated. On the other hand, when the disease—whether primary, secondary, or tertiary—has a tendency to produce suppuration, the use of this drug requires great caution; and the same may be said where the affected parts run rapidly into ulceration, although in some of these one form of mercurial treatment is wonderfully efficacious. He pronounced mercury to be injurious where mortification takes place, whether affecting minute or larger portions of the tissues. (The Doctor.)

TEETH AND TOOTHACHE.—Mr. J. Smith Turner, Dental Surgeon to the Middlesex Hospital, has made, in the current number of the Practitioner, an exceedingly complete and useful contribution to this most important subject. He says:

"Some of the conditions inducing toothache are equally patent or equally obscure to the general practitioner and to the specialist. Ulceration of the membranes of the mouth, for example, would be at once observed, while irritation of the dental nerve in the absence of a visible cause could only be diagnosed after careful and extended observation and perhaps some unsuccessful efforts in treatment. There are, however, conditions and suffering and consequent constitutional disturbance which the general practitioner should be able to ameliorate until such time as special skill be available. A decayed tooth may give pain although the tooth-pulp be not exposed. The alkaline lotion will not give relief, and if the saliva be tested it may be found normal. The cause.

of the pain must therefore be sought in the tooth itself. The decayed dentine is an irritant; this ought to be removed at least partially, if not entirely. To do this without exposing or wounding the tooth-pulp is a delicate operation, and a man not in daily practice could not be expected to accomplish it completely; still enough may be done to serve the immediate purpose. A small mouth-glass and a few excavators, such as are to be had at any dental depot, are all that are required in the way of instruments. Their cutting-edges should be round or spoon-shaped. If they have any sharp angles they are much more likely to wound the tooth-pulp. The cavity should be syringed with tepid water, and that may be sufficient; but there is generally a quantity of soft dentine which should be removed, if possible. The cavity should be dried out with cotton-wool or some other absorbent, and a small pellet of wool moistened with carbolic acid and glycerine should be placed in it, and over this a piece of wool partially moistened with mastic (white hard varnish answers admirably) should be packed. The packing may be accomplished with a blunt probe, and the pressure should be light and not in the direction of the pulp-cavity. This will serve till a permanent plug can be introduced, but should not be trusted beyond two or three days, especially in cavities between the teeth.

"If the cavity be on the masticating surface of a tooth, the wool should be free from pressure on the occlusion of the antagonizing teeth. If it be an interstitial cavity, the gum beyond the margin of the cavity should be disturbed as little as possible unless it has grown into it, when the wool should be packed with the view of pushing the gum out. If the margin of the gum be left projecting into the cavity, its secretion will become abnormal, owing to the irritation caused by the wool; the cavity will be inundated with the secreted fluid, which will have no way of escape, and the discomfort of the patient thereby aggravated rather than relieved. If possible, the wool should not be allowed to depend upon

support from the adjacent tooth for retaining its position, as the pressure is likely to separate the teeth, when the plug will leave the walls of the cavity, and so matters will return to their original condition. The wool used for this purpose should be deprived of its greasy character; hence the pink wool which has been cleansed before dyeing is the best for use.

"Toothache may arise from an exposed tooth-pulp, and in such a case the same course of syringing and cleaning should be pursued as already laid down, and some application used which will subdue the irritation of the pulp, applied as in the former instance, and covered over with wool and mastic. Creosote is an old and deservedly a favorite remedy for such a condition of things; but it should be pure wood creosote, as that which is made from coal-tar is very likely to act as an irritant. The following mixtures are recommended for use in place of creosote, and if complication be a merit they have that advantage:

- | | | |
|--|---|-------------|
| R. Acidi carbolic solutionis saturatæ, | } | āā fl. 3j; |
| Chlor. hydratis sol. sat., | | |
| Tinct. camph. co., | | |
| Ext. aconit. fluid, | | |
| Ol. menth. pip., | | 3ss. |
| R. Chloral hydrat., | | 3j; |
| Aquæ, | | fl. 3ss; |
| Misce et adde. | | |
| Tinct. aconiti. (Fleming), | | m. xv; |
| Chloroformi, | } | āā m. xx. |
| Ætheris, | | |
| Spt. vin. rect., | | |
| R. Liq. opii sedativ., | } | āā fl. 3ij; |
| Ol. caryophyll., | | |
| Camphor, | | |

This last I have found very useful.

"Pain may arise from inflammation of the periosteum, and may be situated in an otherwise healthy tooth which has been

jarred or wrenched. Such cases are not uncommon in the game-season, from shot or bone splinters getting between the teeth during mastication; or it may come from a tooth carrying a large mass of metal-stopping having been subjected to unusual conditions, such as exposure of the side of the face next which it may be situated in riding against wind or rain. A low state of health, constipation, exhaustion after violent exercise or prolonged occupation, scrofula, rheumatism, or syphilis may all produce this inflammation. The gum surrounding the affected tooth is visibly inflamed, and the tooth is tender to the touch and becomes elongated and loose. The degrees of inflammation are various, and in its early stages may be cut short by wiping the gum dry and frequently applying tincture of iodine of double strength all over the inflamed part. A piece of cotton-wool soaked in water as hot as can be borne, and laid between the gum and the cheek, makes an excellent poultice, and if accompanied by a slight aperient is almost sure to give relief in a chronic case. The constitutional treatment required must be obvious to medical men, who have much more command over their patients in the administration of general remedies than the dentist; but I may mention that there is no medicine more likely to cut short in its early stage an acute case of periostitis connected with the teeth than five grains of pil. saponis co. Two leeches applied to the gum over the affected tooth have repute for doing good, but in some cases prove very disappointing. If there be marked swelling of the gum toward the apex of the affected tooth, lancing is the best thing that can be done, but to be effectual it must be done thoroughly. The instrument should be strong as well as sharp, and capable of cutting through the alveolar plate between the gum and the tooth. Before lancing, Mr. Tomes recommends that the gum should be painted with equal parts of tincture of iodine of double strength and Fleming's tincture of aconite.

"Teeth may become tender around the neck from reces-

sion of the gums or from an artificial case of teeth being attached to them. The exposed parts of the tooth should be cauterized with nitrate of silver; and if a metal plate have to be worn immediately, a layer of tissue-paper ought to be placed between the cauterized surface and the metal. As the nitrate of silver should be allowed to remain on the tooth a few minutes in order to prove effectual, the cheek and tongue and saliva should be kept away from it as much as possible by holding some ordinary cotton-wool round the tooth. When the wool is withdrawn a strong solution of salt should be used immediately to convert any free nitrate into an inert chloride. Unfortunately the nitrate of silver can not well be used on the necks of front teeth, where a ring of sensitive decay is often found, but it is a valuable remedy where appearance is not in question.

"The after-pain of an extraction may be modified by washing away the blood-clot and lightly plugging the alveolar cavity with wool saturated with

R. Acidi carbolicī glacialis,	} āā ʒj;
Liq. potassæ,	
Aquæ dest.,	ʒj.

"From the foregoing remarks it may be inferred that there are degrees of inflammation of the tooth-pulp and of the periosteum. As the treatment of subacute inflammation of the tooth-pulp is very limited and quite incomplete unless the tooth be properly plugged, so in cases of acute inflammation of that organ the general practitioner can only relieve the patient temporarily; that is, if the tooth is to be saved. It may be well, however, to point out that subacute inflammation may arise from injury by mechanical violence or from the masticating surface of the tooth being denuded of enamel even to a very small extent. The tooth becomes troublesome, and frequently reminds its owner of its existence when subjected to thermal changes or even the ordinary work of mastication. If on careful examination of a tooth so affected

there be no signs of structural defect observed, search should be made for a decayed tooth elsewhere. When this is found a process of examination, such as tapping with an instrument or probing the decayed part or directing a stream of cold water on to it, may start all the symptoms complained of in an intensified form. In rheumatic people and people under the influence of mercury the irritable state of the teeth is often found. In acute inflammation of the tooth-pulp the history generally extends over a long period. Different substances have annoyed a tooth in which a cavity has been known to exist a long time, but which, according to the patient, has always remained the same. Sweets or bitters, heat or cold, have every now and then caused uneasiness, but when these disturbing causes have been removed the pain has ceased. But at length the periods of cessation have diminished, and the length and intensity of the attacks have increased, the pain radiates from the tooth to the other teeth and over the side of the face, and assumes a throbbing character. These attacks last several hours and then suddenly subside, but surely to return again, sometimes without the smallest apparent provocation, or if the patient lie down. This will go on for a shorter or a longer period, and with varying intensity, according to the constitutional state of the patient, till the pulp dies. The next state of the tooth is the commencement of an alveolar abscess, which, if not attended to, may involve the removal of the tooth and even of a portion of the alveolar plate, or even further mischief.

"In chronic inflammation of the tooth-pulp the pain is less regular in its advent, shorter in duration, and less severe than in acute cases. The peculiarity of most importance is the straggling neuralgic pain, which is rarely referred to a definite center. If any tooth be specified as its seat, it is not unlikely to be a sound one; but even its being decayed is not sufficient in itself to condemn it. In fact the tooth which is nearly destroyed by caries is not so likely to be

the offender as one which is in a better state of preservation. The careful application of a blunt probe to the floor of the cavity will readily detect the irritated nerve, which should be treated as already described, or the tooth removed if worthless."

ESMARCH'S METHOD.—A modification of Prof. Esmarch's method, as introduced by M. Mollière, consists in placing, in addition to the general compressing of the limb by bandaging, a further bandage a few centimeters above the seat of the intended operation. In this way a space full of blood is included in such wise that when ligatures are about to be placed on the great vessels the outlets of the smaller arteries and veins are more readily detected and secondary hemorrhage averted. (*Lyon Médicale.*)

A CAUSE OF FLAT-FOOT.—Dr. Charles Roberts contributes to St. George's Hospital Reports an article on flat-foot, the conclusion of which should be brought to the attention of teachers of children every where. He says:

"Standing still is an altogether unnatural position for a child. All young animals, including children, *run* about, and sit or lie down if left to themselves. All standing occupations, standing in classes or in corners for punishment in schools, are injurious. The solemn parades in which children of all sizes and ages, and at paces which are natural to none of them, are made to take exercises in our better-class private schools are injurious. Long half-holiday excursions, walking with adults, and other thoughtless actions in which children are pushed beyond their strength, tend the same way. There is no position so irksome or injurious to a child as standing still. If observed closely, he will be seen to stand first on one leg and then on the other; and when the muscles are quite tired out, and he can not lean on his neighbor or on a desk or against the wall, he plants his feet on the ground

a little apart to form a good base of support. The knees come together to support each other, and the ankles are turned inward; the muscles being tired or not on the alert, as in running or walking, the strain comes on the ligaments, and crooked legs and flat-foot are the consequences. To this we must add the folly of parents in the better classes of society of cramping their children's feet in small, narrow-soled, high-heeled boots, the whole surface of which is hardly equal to half the area of the natural foot. The high heels especially favor the inversion of the ankle, and should be denounced with uncompromising firmness. Children's boots ought not to be large and heavy, but they should have soles broad enough and heels low and large enough for the whole foot to rest upon; and they should have firm laced tops to keep the foot in its position. The part of the sole under the instep should be high and elastic, to allow of the proper motions and development of the foot, and to avoid the evils which we have seen arise from the solid wooden-soled clog of the factory children."

IODATE OF CALCIUM.—Dr. S. W. Moore reports (*ibid.*) several cases which will serve to illustrate the uses of this drug:

Case 1.—An indolent ulcer of the breast around the nipple, with a purulent discharge of bad odor. A powder of half a drachm of iodate of calcium to one ounce of starch-powder was dusted on the affected part. The discharge became inodorous and the wound assumed a healthy appearance, but the shooting pains in the breast were so severe that the application had to be discontinued.

Case 2.—Large rodent specific ulcers, occupying nearly the whole space between ankle and knee. They were recurrent, and had existed for four months on this occasion. The patient gave evidence of an attack of erysipelas. He was put on milk diet, with large doses of perchloride of iron.

His pulse was 140; temperature 104.2° . Both pulse and temperature remained at this high standard, and the temperature once rose to 105.2° . His leg became œdematous; the integument round the ulcers assumed a sloughy appearance; his tongue brown, dry, and cracked; the blush was spreading upward to the trunk; and with his pulse at 120 and his temperature at 103° F., Dr. M. administered, on the sixteenth day from his admission, two grains of iodate of calcium to be taken twice daily. On the day following he declared himself almost free from pain; his appetite was improved, his pulse had sunk to 116 and his temperature to 101.8° . The administration of the drug was continued as directed, the general improvement in condition progressed, and the pulse and temperature continued steadily to decrease, and in nine days they became normal.

Case 3.—Chronic abscess of the back, with copious purulent discharge and some pain. On the twenty-fifth day after admission one grain of the iodate of calcium was ordered three times daily. A marked improvement followed; the discharge lessened in quantity, and became sanious rather than purulent.

Case 4.—A large indolent ulcer on back of right calf of seven years' standing. The muscles were exposed, and their action could be plainly seen on moving the foot. A fly-blister was applied to the ulcer, and subsequently charcoal poultices. Ordered the iodate as an application with the poultices instead of charcoal. The fetor was overcome to a considerable extent, but not so completely as with charcoal; but it gave rise, as in a previous case, to considerable pain, and had therefore to be discontinued. Now given internally, in two-grain doses, three times a day. A marked improvement followed the administration; the discharge lessened in quantity and lost its offensive odor, the granulation assumed a healthy appearance, and the ulcer gradually healed.

Case 5.—Disease of the tarsal bones. Erysipelas was

developed in the limb. This malady progressed so rapidly and so affected the patient that his life was despaired of. His pulse rose to 140 and his temperature to 104.8°; the limb was swollen to twice its natural size, was œdematous, and the skin inclined to slough at certain parts; his inguinal glands were affected and the course of the lymphatics inflamed. He became delirious, and remained unconscious for five days. Ordered four grains of the iodate three times daily. He immediately improved, became conscious, said the medicine revived him; his pulse and temperature sank, the œdema subsided, appetite improved, and a general indication of returning vigor presented itself. So marvelous was the change effected by this drug that it has certainly never been equaled by any other medicament.

These cases, though few, establish that the iodate of calcium, though an efficient local application, produces too much pain for the comfort of the patient; but that in cases in which it has been administered internally it has invariably improved the tone of the system to such a degree that the pulse and temperature have uniformly fallen to the normal standard.

Notes and Queries.

A CASE OF CARIES OF THE RIGHT PARIETAL BONE.—Dr. George N. Monette, physician to St. Anna's Asylum, New Orleans, sends the following note: "Mr. D. W. S., aged forty-five years, had when quite young contracted syphilis, which in three months was followed by secondary eruption, which readily yielded to treatment. During a period of ten years the disease was dormant, when he received a severely sharp blow upon the center of the right parietal bone, which gave rise to a subacute inflammation, eventuating in a chronic tumor, with suppuration and exfoliation of the external table of the parietal bone, accompanied by a lancinating neuralgia, which was relieved by scruple doses of chloral internally and one-third-grain doses of morph. sulph. subcutaneously. The tumor resembled in its contour the fibro-cystic, the base presenting a dense fibrous structure, almost as if ossified, with a soft, fluctuating sensation at its apex. I gave half-grain doses of calomel every night and scruple doses of iodide of potash thrice daily, and applied tinct. of iodine topically twice daily. When the cyst was opened pus escaped, also small fragments of exfoliated bone. The probe revealed the denuded surface of the parietal bone. The tumor collapsed and contracted down firmly upon the cranium. I dressed it with carbolic oil, about an ounce to a pint, until cicatrization took place. The patient recovered without perforation of the cranium or any nervous lesion."

MAGGOTS IN THE EAR.—Dr. W. B. Jefferson, of Elkton, Ky., relates the following: "In June last a gentleman con-

sulted me late one evening about a peculiar sensation and pain in the left ear, which he said he had experienced for thirty-six hours, and was rapidly growing worse. He stated that four days before a fly or bug, he could not tell which, flew into his ear, but he 'scared' it out almost instantly, and thought no more about it until he began to experience the sensations above described. On inspection of the ear I found a perfect nest of maggots, from one fourth to one third of an inch long, and numbering, I suppose, as many as forty or fifty. A little bloody matter was escaping from the ear, and had been during the day. I immediately poured into the ear some spts. of camphor, which caused the maggots to tumble out in a hurry. The patient had no more trouble."

WEATHER AND DISEASE IN LOUISVILLE.—Through our friend, Dr. Ely McClellan, we have received from Captain Marsh, of the United States Signal Service, the following notes of the weather in Louisville during the months of June and July: In June the rainfall was 5.79 inches; the mean temperature was 75.19°. In July the total rainfall was 16.46 inches; the mean temperature was 79.12°. On the 22d the fall was 2.30 inches, and on the 29th it was 3.42 inches.

August has been dry, but up to this time the city has remained healthy, notwithstanding the unprecedented rains of the previous months.

KEEPING WRITTEN NOTES OF CASES.—We find the following in the autobiography of Sir Benjamin Brodie: "During the summer of 1804 a friend of mine of the name of Jeffreys was house-surgeon of the hospital, and my intimacy with him enabled me to pursue my studies there with great advantage. He had more knowledge of his profession than most young men of his standing. In the early part of the day I was always with him in the wards, and in the evening we were generally together. It was from him that I first learned

the importance of keeping written notes of cases, a practice which I continued ever afterward. These notes I have carefully preserved. They now form many thick quarto volumes of manuscripts, to which (and even to the earliest of them) I not unfrequently refer with advantage even at this advanced period of my professional life. My custom has been to take *short notes at the bedside of the patients in the day, and to expand them with the aid of my memory in the evening.* Thus they became an exercise of the memory, and *instead of weakening tended to strengthen that important faculty.* After an experience of nearly fifty years I am satisfied that no one can be well acquainted with his profession, either as a physician or a surgeon, who has not studied it in that manner. . . . I have always, during the many years in which I was a teacher and a hospital surgeon, endeavored to impress on the minds of my pupils the necessity of making and preserving such written records of their experience; and *I have been often pained to observe how small a proportion have followed the advice which I gave them."*

The experience of Sir Benjamin as expressed in the concluding sentence of the above extract is, we believe, also that of most teachers of medicine in this country.

ORTHODOXY VERSUS HETERODOXY.—The following communication to the New York Medical Record from Prof. E. S. Dunster, M. D., explains itself:

"UNIVERSITY OF MICHIGAN, ANN ARBOR, July 15, 1875.

"Editor Medical Record:

"DEAR SIR,—You are in error in your brief editorial in Record of Saturday last, and have done the regents of this university an injustice by asserting that an attempt is being made on their part 'to appoint one or two homeopathic professors ostensibly to take charge of the new department, but in reality to become by law members of the faculty.' If you will refer to the bill establishing the college of homeopathy, published in full a few weeks since in your own columns, you will see that this assertion is not true.

The homeopathic professors are not, and by the very terms of the act can not be, members of the faculty of the now-existing department of medicine; nor, on the other hand, are the professors in this (the old) school members of the faculty of the homeopathic college, for both schools have separate statutory enactments creating them distinct and independent departments of the university.

"Your article is furthermore *doubly* unjust to the regents, from the fact that they have twice peremptorily refused to obey the legislature when it attempted to force such 'disagreeable and unprofitable associations' by enacting the appointment of homeopathic professors in the old department of medicine. This offensive feature having been removed in the last act, the regents have accepted the legislative grant and have established the new college.

"Very respectfully,

"E. S. DUNSTER, M. D."

WHY ARE SOME DOCTORS FAILURES?—Dr. Clarke, in his "Recollections," states that Wardrop, surgeon to George IV., though one of the most gifted men of his time, failed to attain the highest post in the profession for the following reason, among others: "He was vain, self-opinionated, and scurrilous. He was fond of scandal, and condescended to collect and retail the pettiest scraps of gossip. He seemed to know the private history of every member of the profession who had attained to any position."

DETERMINATION OF SEX IN UTERO.—We have been informed on good authority that the sex of five children in this city was lately determined before birth, according to the frequency of pulsations of the fetal heart, which are said to be more frequent in females. The children were all pronounced girls, but they all turned out to be boys. There must be something in the rule. (Pacific Medical Journal.)